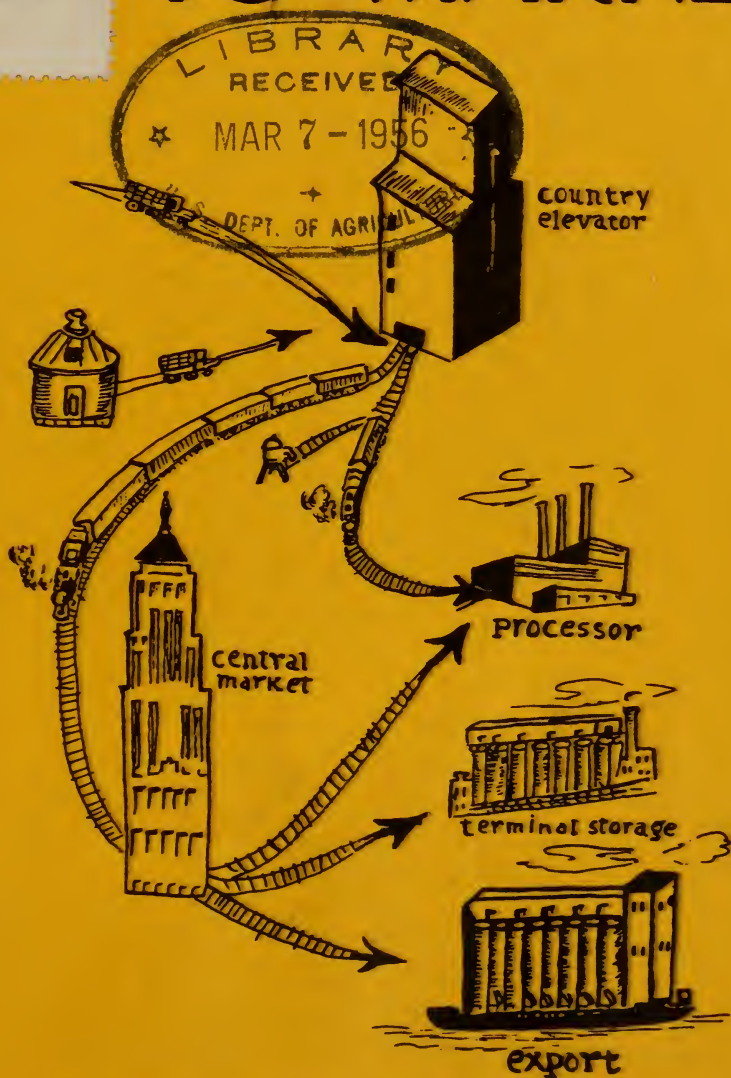


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CORN GOES TO MARKET

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by Duke Manthey and Henry Johnson

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CORN GOES TO MARKET

is a simplified description of the physical movement of corn in the channels of trade. The text was prepared by Duke Manthey of the Director's staff, and the sketches by Henry Johnson of the Program Operations division, Chicago Commodity Office, Commodity Stabilization Service, U. S. Department of Agriculture.

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CORN GOES TO MARKET

This story begins with the corn farmer.

Most corn farmers grow other things besides corn --like oats and soybeans and wheat and hogs and maybe a few chickens.

But what we want to talk about is corn and how it gets from the field to the family table.

Most grain plants bear their seed at the tip of the stalk.

Corn is an exception. Corn bears its seed on an ear about midway up the stalk. Some hybrid varieties grow several ears on the same stalk.

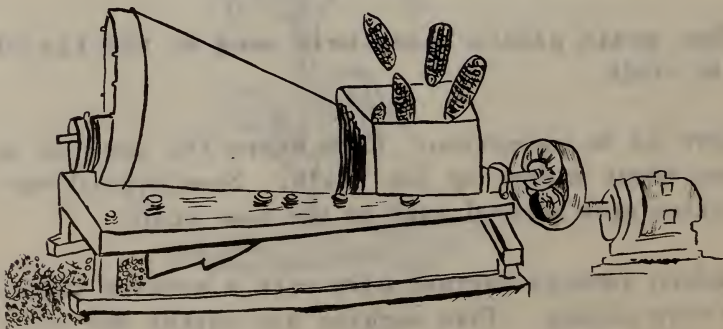
Modern farmers harvest corn with a machine called a corn picker. This machine has chains and roll-



ers to snap the ear from the stalk and to pull the husk from the ear.

Harvested corn is known as ear corn, meaning that the kernels of corn are still attached to a pithy central stem called a cob. They are removed from the cob by another machine known as a sheller.

Some farmers feed their corn to livestock. It puts a fine finish on beef cattle and hogs. Such farmers do not market their corn in the form of grain.



They market livestock, which you and I eat as beef or pork.



However a very large proportion of the farmers sell the corn they raise as

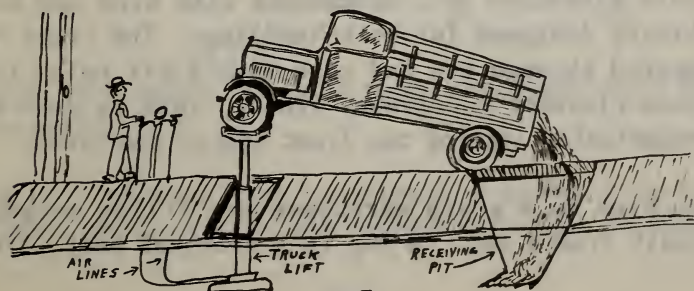
grain. Somewhere around 20 percent of the total corn crop of the nation is marketed.

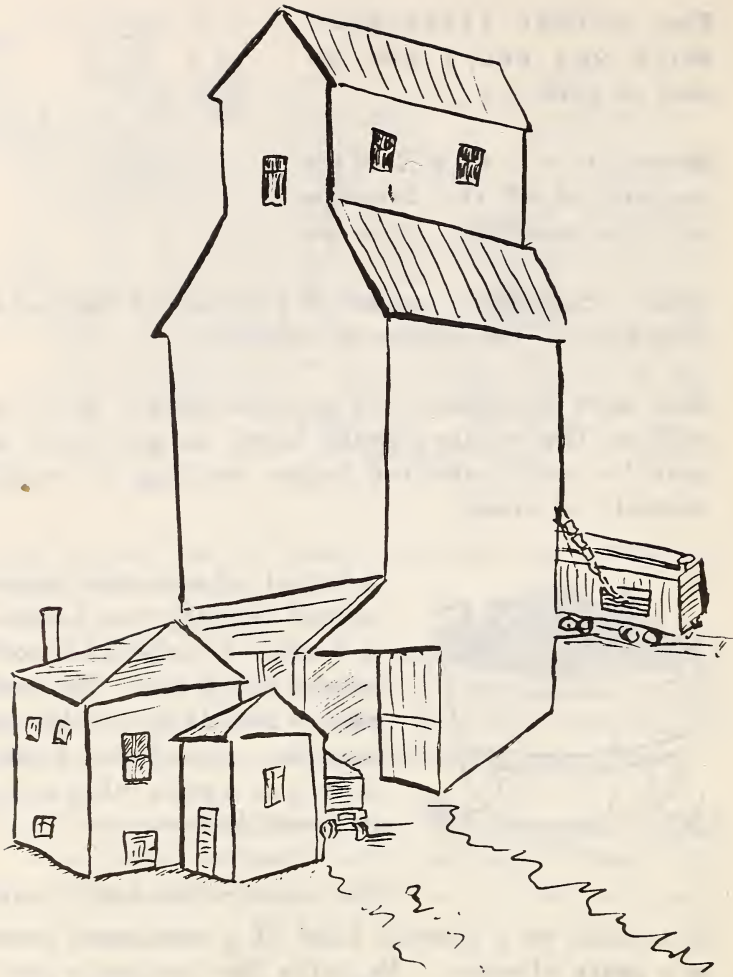
Most corn for market is shelled corn. If it is sold to the country grain buyer as ear corn, he usually has it shelled before selling it in the channels of trade.



A bushel of ear corn weighs around seventy-two pounds. A bushel of shelled corn weighs fifty-six. The cobs make a hot fire in the cob burners so often found near the grain elevators in the Middlewest.

The farmer takes his corn in a truck to a special kind of a warehouse known as a grain elevator. He sells the corn to a grain buyer who runs the grain elevator.

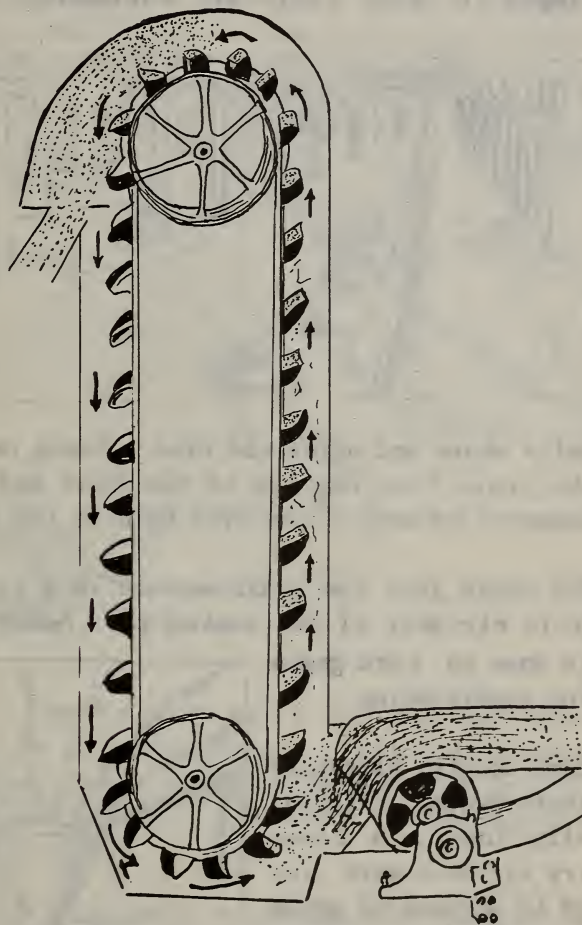




Corn, like other grains, can be handled in bulk. Grain elevators are warehouses with bins and machinery designed for bulk handling. The truck is emptied through its end gate into a pit below the grain elevator's driveway floor. This is done by mechanically lifting the front end of the truck.

The bins in a grain warehouse are filled mechanically from a leg. A leg is a vertical belt, fit-

ted with cups. The cups scoop up the grain from the bottom of the leg and lift it to the top of the leg, where it is thrown automatically into a sort of funnel. The funnel ends in a movable,

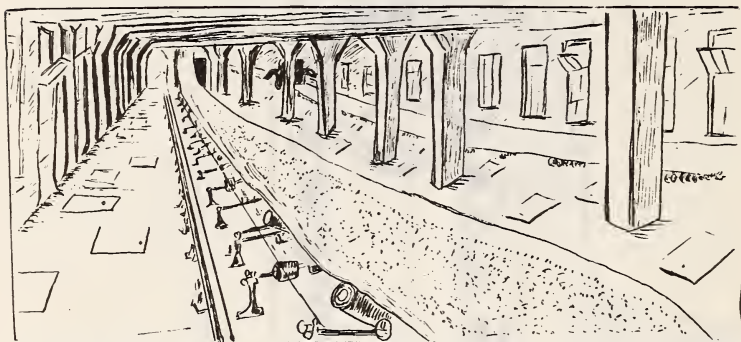


tube-like spout, which directs the grain into any chosen bin.

In this process the leg elevates grain from the bottom to the top of the warehouse. That is where

the term "grain elevator" comes from. The trade usually says just plain "elevator."

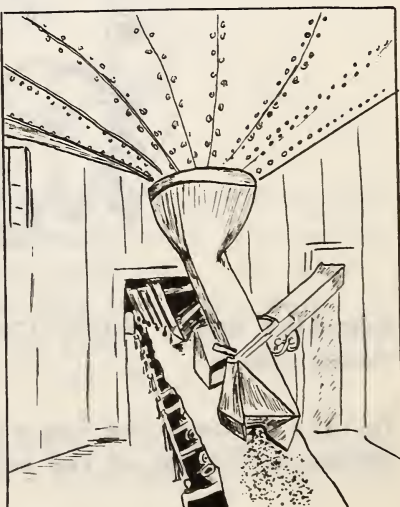
In the larger elevators, where many bins are arranged in rows, there are horizontal conveyors



belts above and below the bins. These belts carry the grain from the leg to the bins and from the hoppers bottoms of the bins back to the leg.

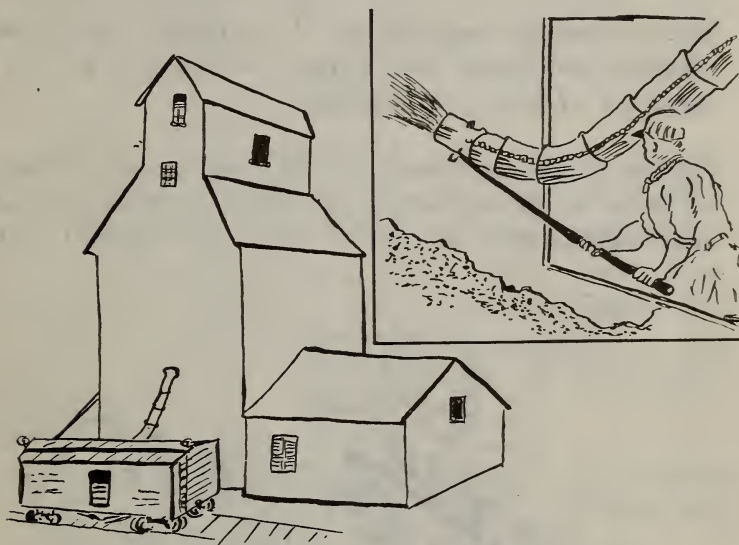
You could just run grain around in a circle in a grain elevator if you wanted to. Sometimes this is done to turn grain for conditioning.

Some country elevators store grain. Originally, bins in a country elevator were used to accumulate grain in carload quantities for shipment to market. There were four to six or more bins, each one large enough to hold a carload or more of grain.



The number of bins determined how many kinds of grain the elevator could receive at the same time.

Grain of the same kind, but from different farmers, is all dumped in the same bin. Thus it becomes commingled, and the grain from individual farmers loses its identity.



One of the funnels into which the leg can throw grain ends in a loading spout. This has a flexible tip that can be inserted through the door of a railroad box car on a side-track beside the elevator.

When a country elevator accumulates a carload of corn of a given kind and quality, it loads it through the loading spout into a box car. The railroad hauls the car from the country elevator to its "yards" in a terminal market. Terminal markets are usually large cities, where a given railroad's tracks may end, or "terminate."



The carload of corn may be "consigned" to a commission merchant for sale. Or it may go to a terminal elevator for storage.

Papers become important in the commercial movement of corn at this point. Not that records are not important earlier. After all, the farmer gets



paid with a check, and a grain elevator operator must have a bookkeeping system to know what he buys and sells.

If this corn is for sale, an "order bill-of-lading" (which means a standard description of the contents of the car) goes to the commission merchant with a "sight-draft" attached. The sight-draft calls for a payment to cover most of the value of the shipment, and the order bill-of-lading is a negotiable instrument.

The commission merchant may be by-passed if the corn goes direct to storage. But let's follow this shipment through the channel in which it is sold by a commission merchant. The commission merchant is a salesman, who sells the grain for the country elevator operator who shipped it. He gets a commission (a fixed amount of money per bushel) for his work.

In the railroad yards at the terminal a man called a "sampler" breaks the seal on the car door and enters the car to take a sample of the grain.

He does this with a long, double-tube instrument



called a probe, which he thrusts down through the grain at five different points in the car to withdraw small samples representative of the entire carload.

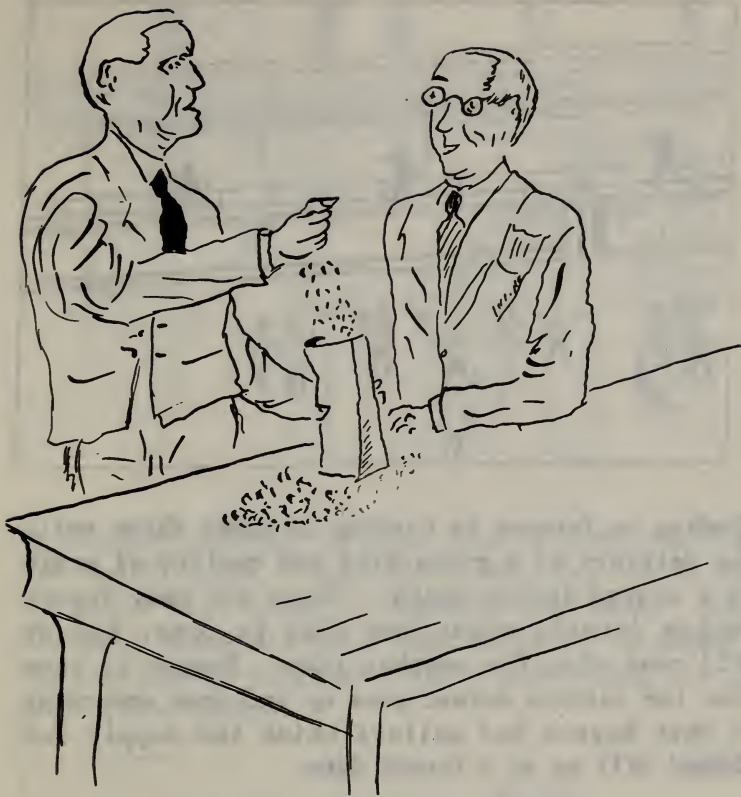
A grain inspector in a grading office runs the sample through a number of tests to establish its Official U. S. Grain Standards grade number. Both the sampler and the grain inspector are licensed and supervised by the U. S. Department of Agriculture.



From here on, buying and selling and the movement of the corn is based on the sample and a piece of paper called a grade certificate that tells its official U. S. Grade number.

the sample, with it's grade number, is delivered to the commission merchant's table on the floor of

(SEAL OF) (THE STATE) (OFFICIALS)	<p align="center">STATE OF ILLINOIS DWIGHT H. GREEN, GOVERNOR GRAIN INSPECTION CERTIFICATE DEPARTMENT OF AGRICULTURE DIVISION OF GRAIN INSPECTION GENERAL OFFICE 141-W. JACKSON / 100 LEVARD, CHICAGO</p>	<p align="center">IN INSPECTION This Certificate is valid "IN" INSPECTION, GRAIN FIELD AND STORAGE IS MADE IN ROOM CHICAGO, MAY 13 1950 P. M. 11:00 A. M.</p>		
<p>I hereby certify that I hold office under the United States Grain Standards Act To inspect and pass the kind of grain covered by this Certificate, to take the sample and to inspect the grain and to deliver the sample of grain; and that the grade hereof, according to the official grain standards of the United States, is that stated below</p>				
<p align="right">Quantity—carload</p>				
<p>Location <u>CHICAGO</u> Identification <u>SFE 30168</u></p>				
<p>Kind and Grade <u>2 YELLOW</u></p>				
<p>Test Weight <u>57.5</u> per bu Moisture <u>13.20</u> % Damaged <u>4.</u> % Foreign Mtr <u>%</u></p>				
<p>Remarks _____</p>				
<table border="1"> <tr> <td data-bbox="171 1238 659 1379"> <p>Contains for review. Tests, etc. not to appear Under the rules of the Public Utilities Commission of Illinois and in the public interest, it is ordered that the U.S. Grain Standards Act must be filed in this office within twenty-four (24) hours from the time of initial inspection, and before the grain is inspected, and have been inspected or rejected in this district</p> </td> <td data-bbox="659 1238 885 1379"> <p align="center">CERTIFICATE NO <u>1162</u></p> <p align="center">OFFICE <u>28</u></p> <p align="center">Licensed Inspector</p> </td> </tr> </table>			<p>Contains for review. Tests, etc. not to appear Under the rules of the Public Utilities Commission of Illinois and in the public interest, it is ordered that the U.S. Grain Standards Act must be filed in this office within twenty-four (24) hours from the time of initial inspection, and before the grain is inspected, and have been inspected or rejected in this district</p>	<p align="center">CERTIFICATE NO <u>1162</u></p> <p align="center">OFFICE <u>28</u></p> <p align="center">Licensed Inspector</p>
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the grain exchange where trading for cash grain is done. Different commission merchants have different tables. On these they display the samples of the grain they have to sell.

Buyers pass among the tables and bid for the grain they want. Bids are based on the futures quotations posted on a big blackboard at one end of the trading floor. Commission merchants sell to the highest bidder.

This is probably as good a place as any to say something about the futures market. The grain futures market is the basis for the cash grain trade.

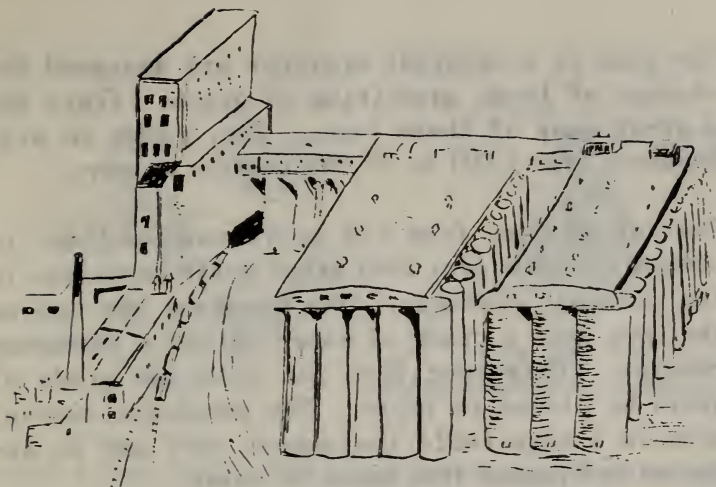


Trading in futures is trading in paper which calls for delivery of a given kind and quality of grain in a stated future month. There are many interesting details about how this is done, but we will save that for another time. Enough to know that the futures market goes up and down according to what buyers and sellers think the supply and demand will be at a future date.

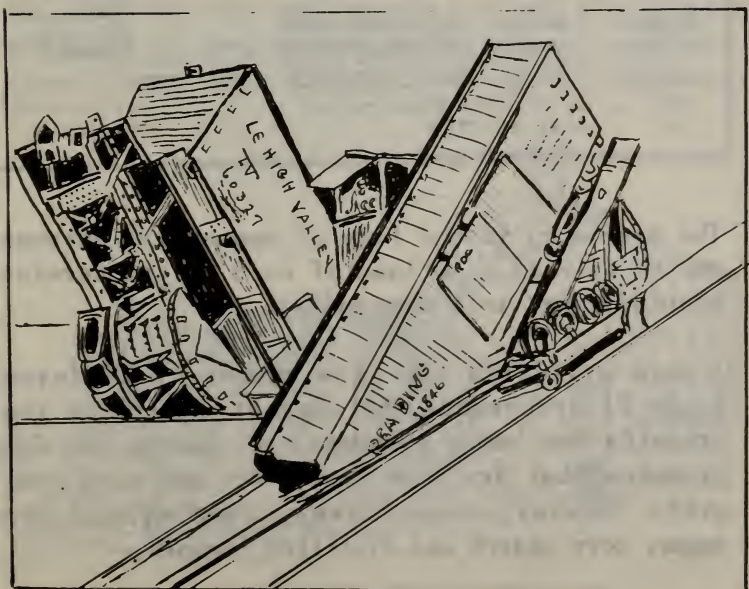
Futures contracts may end up in the delivery month as cash grain. For this reason the posted futures prices tell a seller how much he can get for the grain and a buyer how much he must pay for it.

There are several kinds of processors who may buy the corn at the sample table. And they may direct it immediately into processing. But let's follow this car the long way.

Suppose the buyer is a grain merchandiser who has no immediate sale for the corn. He directs it to a terminal elevator for storage. Now we are back to the storage business.



A terminal elevator is just like a country elevator, only bigger. Instead of emptying truckloads of grain into bins, it empties carloads. Some terminal elevators have huge machines to empty a whole carload of grain into a receiving pit in just a few minutes.



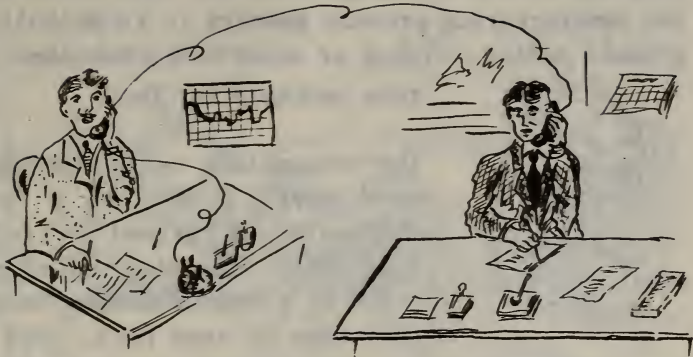
The bins in a terminal elevator are designed for storage of large quantities of grain. There are a great many of these bins. They range in size anywhere from 1,000 to 10,000 bushels or more.

The car of corn from the grain merchandiser is commingled with corn from other grain merchants in the terminal elevator. The merchant who stores the corn gets a piece of paper called a warehouse receipt. This specifies the kind and grade of grain he placed in store. The warehouse receipt also is a negotiable instrument that may be endorsed and passed from buyer to buyer.

ORIGINAL		NO 1659
NEGOTIABLE Warehouse Receipt for Grain		
RECEIVED FROM A. P. JONES		OF GORTLAND OHIO COLUMBUS OHIO
IN STORAGE WAREHOUSE LOCATED AT COLUMBUS OHIO FRANKLIN COUNTY		
Key Storage from TRUCK Twenty one Thousand Eight Hundred Pounds		
said Grain is fully and insured by the undersigned Warehouse Against loss or damage from Fire, Theft, Tornado, and other causes unless expressly stated otherwise on this receipt		
GAUSS LBS	21800	GRADE # 1RW
NET		TEST
BUSHEL	363.33	PER BUSHEL LBS
KIND	WHEAT	MOISTURE CONTENT 14%
UP GRAIN		DOCKAGE 0
APPROXIMATE GRADE OF GRAIN AT DATE OF RECEIPT		FOREIGN MTR 0
RECEIVED FOR STORAGE AT COLUMBUS, OHIO		XYZ ELEVATOR
On	JUNE 10, 1954	BY JOHN DOE CO

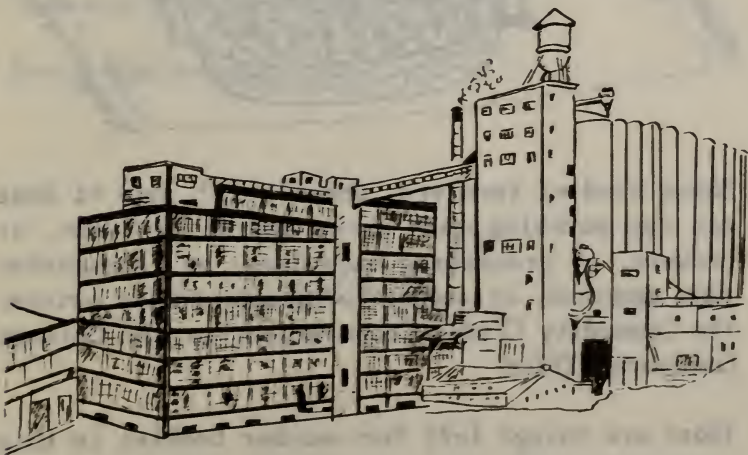
The next step in the line of commercial movement may be sale of a carload of corn by the terminal grain merchant to a corn miller.

A corn miller is one of a number of different kinds of processors who convert corn into food products for human consumption. Among the food products that are made from corn are corn meal, grits, hominy, corn flakes, corn syrup, corn sugar, corn starch and distilled liquors.



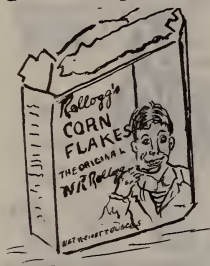
Let's say this miller processes the corn into meal, grits and hominy. If he is in no hurry for the corn he may buy a warehouse receipt, and order out the corn at a later date for delivery to his mill. If he wants the grain immediately, the grain merchant may take up the warehouse receipt and order delivery of the grain to him.

The railroad then delivers a carload of the kind and grade of corn ordered to the buyer's corn mill. Here it goes into storage bins again. However,



from the miller's storage bins the corn moves into the manufacturing process wherein it is de-hulled, ground, puffed, flaked or otherwise processed and

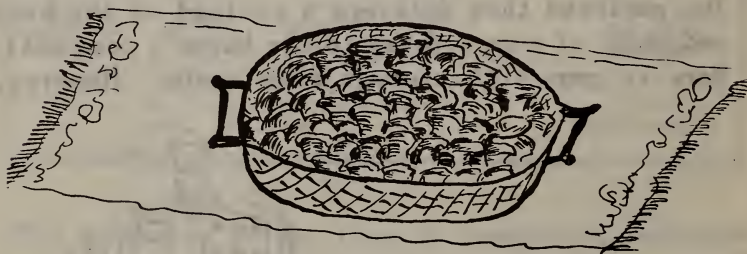
then packaged for food.



The corn miller sells the packaged corn product to a food wholesaler in carload or truck-load lots. The wholesaler resells to a retail grocery store, this time in case lots. And so

the corn ends up on the grocery store shelves, where it is bought in single packages by the homemaker, and thus ends up on the family table.

Well! There you are. That is a rough sort of description of the physical movement of corn on it's way from the farmer's field to the corn meal muffins and hominy grits on the American breakfast table.



Seems kind of involved, doesn't it? And it does not say anything much about Boards of Trade, or brokers, or processing machinery, or transportation agencies, or support programs, parity prices, the Commodity Credit Corporation, or the Chicago Commodity Office.

Those are things left for another booklet in this



series. We just thought you might like to know how corn moves in trade.

Quite a bit different from when our grandpappies toted sacks of corn on their backs from the home-stead to the local mill. And carried the ground corn meal back to the farm again.

More efficient, toc, isn't it?

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